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2008 ISM Workshop, Building Mission Success
Abstract and Presentation Outline

Topical Area

( ) Integrated Management for Mission Success
( ) Safety Culture (including HPI)
(x) Work Planning and Control
( ) Contract Transition
( ) Feedback and Improvement

Presentation Title

Integration of Nevada Test Site (NTS) Work Control Programs and Incorporating Integrated Safety Management (ISM) into Activity Level Work Planning and Control

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Abstract:

This session will examine a method developed by Federal and Contractor personnel at the Nevada Site Office (NSO) to improve the planning and execution of work activities utilizing an Activity Level Work Control process in response to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, *Oversight of Complex, High-Hazard Nuclear Operations.* The process was initially developed during Fiscal Year (FY) 2007, and implementation is commencing during the fourth quarter of FY 2008. This process will significantly enhance the flexibility and the appropriate rigor in the performance of work activities.

Presentation Outline:

I. Introduction

The DNFSB stated in recommendation 2004-1, *Oversight of Complex, High-Hazard Nuclear Operations*, that "the department needs additional improvement in consistency and reliability of work planning and in work control performance at the activity level" and "the current Integrated Safety Management (ISM) system contains minimal expectations, no explicit requirements, at any level to routinely assess the implementation of work planning and work control processes at the activity level." In response to January 23, 2006, direction provided by the NNSA Assistant Deputy Administration for Program Integration, cognizant NSO personnel coordinated the efforts of a working group tasked with addressing options to enhance work planning and control processes. The attributes and best practices provided in Attachment 1 of the January 23, 2006, Memorandum were utilized as follows:

- Review existing site work planning and control processes against said criteria; and identify any gaps, and identify corrective actions to eliminate the gaps;
- Examine options to institutionalize said criteria so that activity level work is routinely assessed by the site offices and contractors for all contractor organizations that perform work;
- Confirm that work planners are adequately trained and qualified to defined criteria/expectations or for those work planners who are not qualified, identify dates by which they will be qualified;
- Implement periodic/routine management observation of work activities and interaction with workers in the field/on the floor in accordance with defined criteria/expectations; and
- Document how the above actions will flow down to ensure the adequacy of work performed by subcontractors, and how adequate implementation by subcontractors is verified.

A singular process for controlling all activity work performed by or on behalf of the NSO was the foremost requirement to achieve the DOE's commitment to the DNFSB. In FY 2007, the Nevada Test Site (NTS) Prime Management and Operations (M&O) Contractor, National Security Technologies, LLC (NSTec), was assigned a Performance Objective by the NSO, which they successfully accomplished, to integrate the existing work control programs and have one enterprise-wide integrated process. Additionally, NSTec was tasked to obtain mutual agreement among the 12 other contractors performing work in support of the NSO mission on a single enterprise work process and methods.

Due to the array of customers and users at the NTS, a potential for conflicts exists from various approaches to work execution and safety management. To prevent these conflicts, NSO previously developed NSO Manual M412.X1D, *Real Estate/Operations Permit*. The Real Estate/Operations Permit provides a mechanism to ensure that one entity is assigned safety coordination responsibility for real estate (facilities) and

operations (projects) under NNSA/NSO purview, and provides for a clear assignment of responsibilities when different entities perform work in a common facility.

II. Method

The NTS M&O Contractor developed a process that establishes and describes how ISM and Quality Assurance programs are integrated into activity level work (refer to Figure 1 below). The integrated process will be used to establish the controls required when performing activity level work. For example, where the previous work control model allowed for several hazard analysis procedures, forms, and techniques, this new process will identify the procedure(s) (e.g. tools) and requirements for performing a hazard assessment. Similarly, after identifying the appropriate tool to implement work control, one may select a technical procedure or a work package to implement controls in order to perform work safely and efficiently.

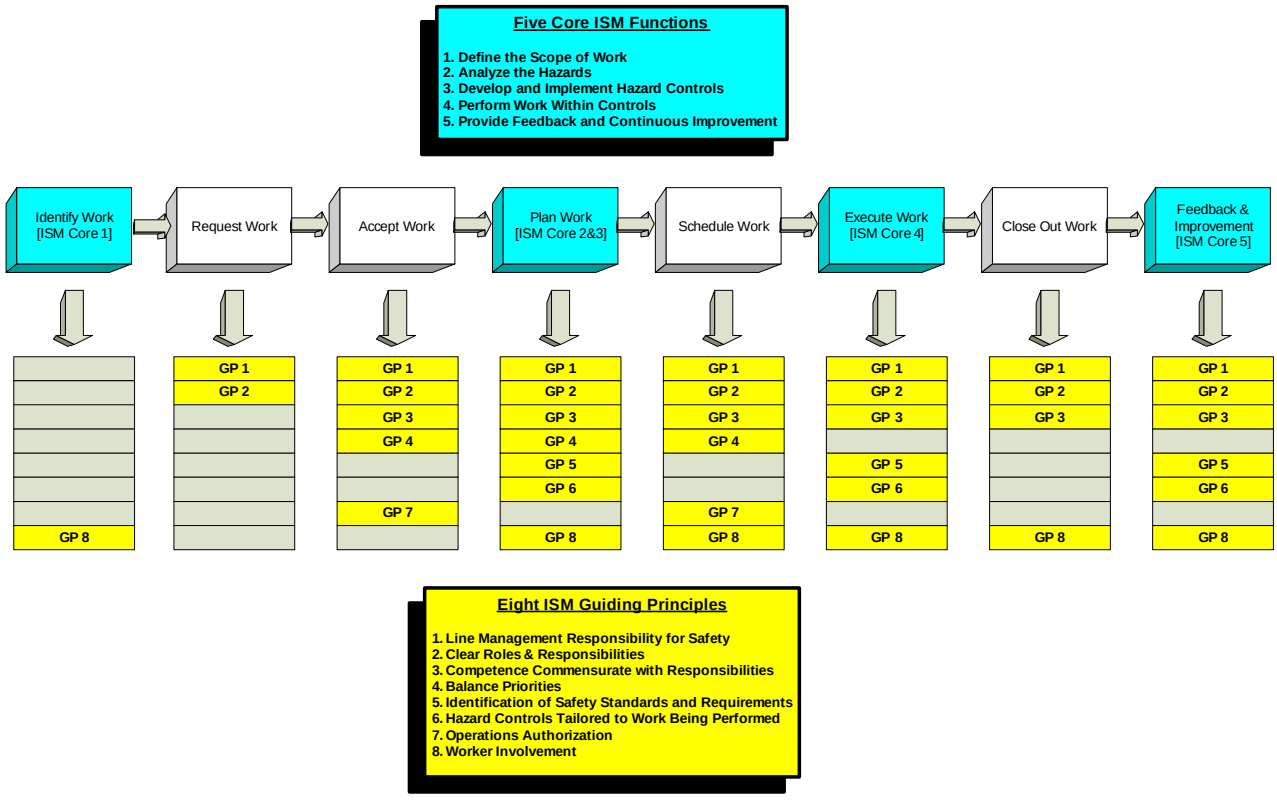

Figure 1

Activity level work is defined as any job, task, or sub-task (e.g. any activity, step, or action that is part of an instruction, procedure, process, sequence of steps, or evolution). Activities can be performed in the field or on the floor where hazards are present that are either associated with the work or the work environment, regardless of who is performing the work or the organization with which they are affiliated. Work is classified, planned, and executed based upon the following criteria: complexity; consequence; and frequency (refer to Figure 2).

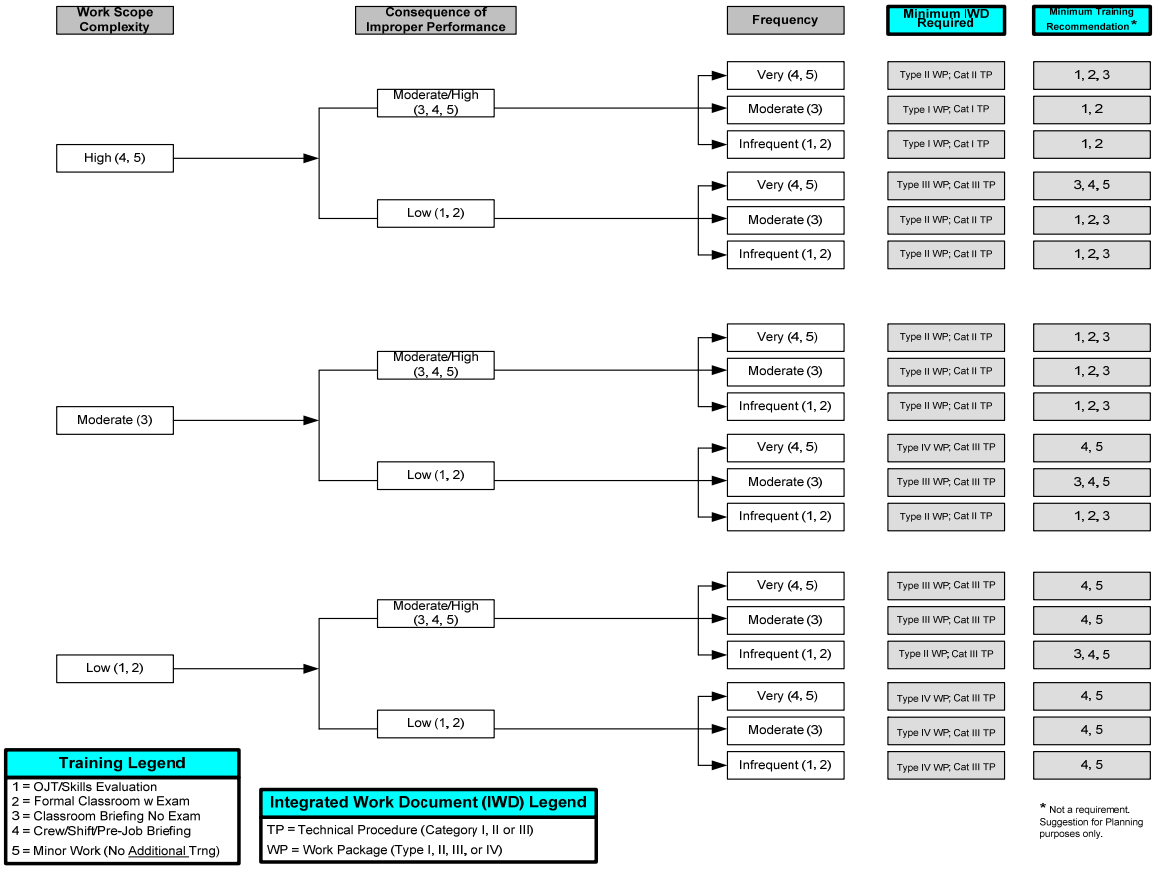

Figure 2

A significant element for the overall success of the process was organizational structure and responsibilities. The M&O Contractor's directive management system and flow down process define work planners, work supervisors, responsible managers, work approvers, workers, subcontractors, subject matter experts, and all other personnel involved in activity level work planning and control roles, responsibilities, and authorities.

These documents provide clear and unambiguous lines of authority and responsibility at all organizational and execution levels. The M&O Contractor's "Management Description" provides a thorough representation of their organizational structure and approach to establishing and communicating roles and responsibilities. The safety chain of responsibility extends down through the management chain, to the workers of the organization, and to the workers of the other organizations who are assigned as support and subcontractor programs. Other NSO Contractors are aligning their processes with these mechanisms to ensure consistent implementation.

III. Results

The collective process has achieved the objective of supporting implementation strategies addressing the DOE response to DNFSB Recommendation 2004-1. The depth and breadth of the activity level work documents appropriately focus application of controls, based upon the potential and known hazards to the worker.

IV. Conclusions

This innovative work control process was designed and developed with "on-ramps" and "off-ramps" to be flexible enough to accommodate the wide variety of work performed by or on behalf of the NTS M&O and other NSO Contractors. Irrespective of what kind of work is being performed, this single, integrated process will be used to establish the controls required when performing activity level work.

V. References

NNSA Memorandum, *Revitalizing Integrated Safety Management; Site Office Action Plans for Improving Activity Level Work Planning and Control Processes,* January 23, 2006

DOE M 450.4-1, *Integrated Safety Management System Manual,* November, 2006

NNSA Activity Level Work Planning and Control Processes, January, 2006, guidelines

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